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PATENT**REMARKS**

Applicants have thoroughly considered the Examiner's remarks in the December 2, 2005 Office action and present claims 1, 3, 8, 14-26 and 50-62 for further examination. Applicants acknowledge the Examiner allowing applicants to elect both Group I (i.e., claims 1-13) and Group II (i.e., claims 14-26 and 50-62) for examination, and, thus, further provisionally elect claims 1, 3 and 8 readable on Species G (2nd processor/level receives or includes Railway infrastructure only). However, applicants respectfully request reconsideration of the election requirement and, in particular, of the reason stated in the Office action for the election between Species F, G, H, I and J. The Office asserts that upon election of invention I (i.e., Group I), applicants must elect one of the Species F, G, H, I and J for examination, and asserts that this additional requirement is to facilitate examination due to the broad range of infrastructures that can be included in the multi-level system. (See Office action at page 2). However, applicants submit that claim 1 is a linking claim because it reads on an embodiment of the invention that includes each of Species F, G, H, I and J. Accordingly, applicants submit that the election requirement should be removed. Notably, as set forth in claim 1, the first processor (not the second) is associated with a railroad infrastructure level configured to control an operation of a railroad infrastructure operating within the railroad infrastructure level. Nevertheless, applicants' remarks are directed to the species as identified by the Office.

Claim 1 recites in part, "a first processor associated with a railroad infrastructure level configured to control an operation of a railroad infrastructure operating within the railroad infrastructure level" (i.e., Species G), "a second processor associated with a railroad track network level configured to control an operation of a railroad track network within the railroad track network level, said railroad infrastructure level containing one or more railroad track network levels" (i.e., Species H), "a third processor associated with a train level configured to control an operation of a train operating within the train level, said railroad track network level containing one or more train levels" (i.e., Species F), "a fourth processor associated with a consist level configured to control an operation of a consist of a train within the consist level, said train level containing one or more consist levels" (i.e., Species I); and that "each processor optimizing the operation within its associated level and to cooperate with a processors associated

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with at least one other level to optimize an operation of the railway system across the levels of the railway system based on an optimization parameter" (i.e., Species J). Thus, claim 1 is a linking claim, or generic, in that it reads on an embodiment of the invention that includes each of Species F, G, H, I and J. Linking claims must be examined with, and thus are considered part of, the invention elected. When all claims directed to the elected invention are allowable, should any linking claim be allowable, the restriction requirement between the linked inventions must be withdrawn. (See MPEP § 809). As such, applicants submit that upon allowance of claim 1 all claims within Species F, G, H, I and J are allowable.

Claims 1, 5 and 10 are at least readable on Species F, claims 1, 3 and 8 are at least readable on Species G, claims 1, 4 and 9 are at least readable on Species H, claims 1, 5 and 10 are at least readable on Species F, claims 1, 6 and 11 are at least readable on Species I, and claims 1, 2 and 13 are at least readable on Species J.

Applicants also ask the Examiner to consider the relative burdens on the Examiner and the Applicants. In order for a reliable search to be conducted for each species of claims, the same classes will have to be searched because of overlapping claim 1. Accordingly, maintaining all claims in the application should not add more than a minimal burden. In this regard, the Examiner is asked to consider M.P.E.P. § 803:

*"If the search and examination can be made without serious burden, the examiner must examine it on the merits, even if it includes claims to distinct or independent inventions."*

(emphasis added)

Applicants respectfully submit that the burden of examining the additional claims having an overlapping search field cannot fairly be said to be "serious." In contrast, if required to prosecute and maintain additional applications/patents, Applicants would incur filing and issue fees of about \$1000 or more and maintenance fees of about \$3000 or more for each additional application/patent, such fees being in addition to the similar fees to be incurred in this application.

Moreover, applicants submit that requiring such an election fails to appreciate one of the benefits of the present invention. Specifically, applicants have recognized that optimization of operations for a railway system requires a multi-level approach. (See application page 2,

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paragraph 0006). That is, each level interacts in a unique manner with related levels, with different data being interchanged at each interface between the levels so that the levels can cooperate to optimize the overall railway system 50. (See application pages 5-6, paragraph 0036 and FIG. 1). As described in the present application, the multi-level nature of a railway system comprises from the highest level to the lowest level: a railroad infrastructure level 100, a track network level 200, a train level 300, a consist level 400 and a locomotive level 500. (See application page 5, paragraph 0036 and FIG. 1). Moreover, aspects of the railroad infrastructure level 100 are operable to serve other levels of the railway system 50 such as track networks, trains, consists or locomotives, each of which may be optimized as a function of a multilevel optimization criteria such as total fuel, refueling, emissions output, resource management, etc. Thus, as described and claimed in the present application, the railway system infrastructure claimed in species G includes the railroad track network in species H, the train data in species F, and the consist data in Species I, and optimization instructions in Species J are integral to optimizing each of claimed species F, G, H, and I.

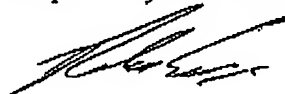
For these reasons, applicants believe the election requirement between Species F, G, H, I and J is improper and should be removed. Nevertheless, claim 1 is generic with respect to Species F, G, H, I and J, and, thus, Applicants submit that upon allowance of claim 1 all claims within Species F, G, H, I and J are allowable (i.e., claims 1-13).

In view of the above, the restriction and election requirements are traversed.

Applicants respectfully request examination and allowance of the elected claims.

The Commissioner is hereby authorized to charge any deficiency or overpayment of any required fee during the entire pendency of this application to Deposit Account No. 07-0846.

Respectfully submitted,



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